

## Supplementary Information for the manuscript

### $\gamma$ radiation-induced damage of nucleic acid bases, calf thymus DNA and DNA within MCF-7 breast cancer cells by $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$ : A potential radiosensitizer

by

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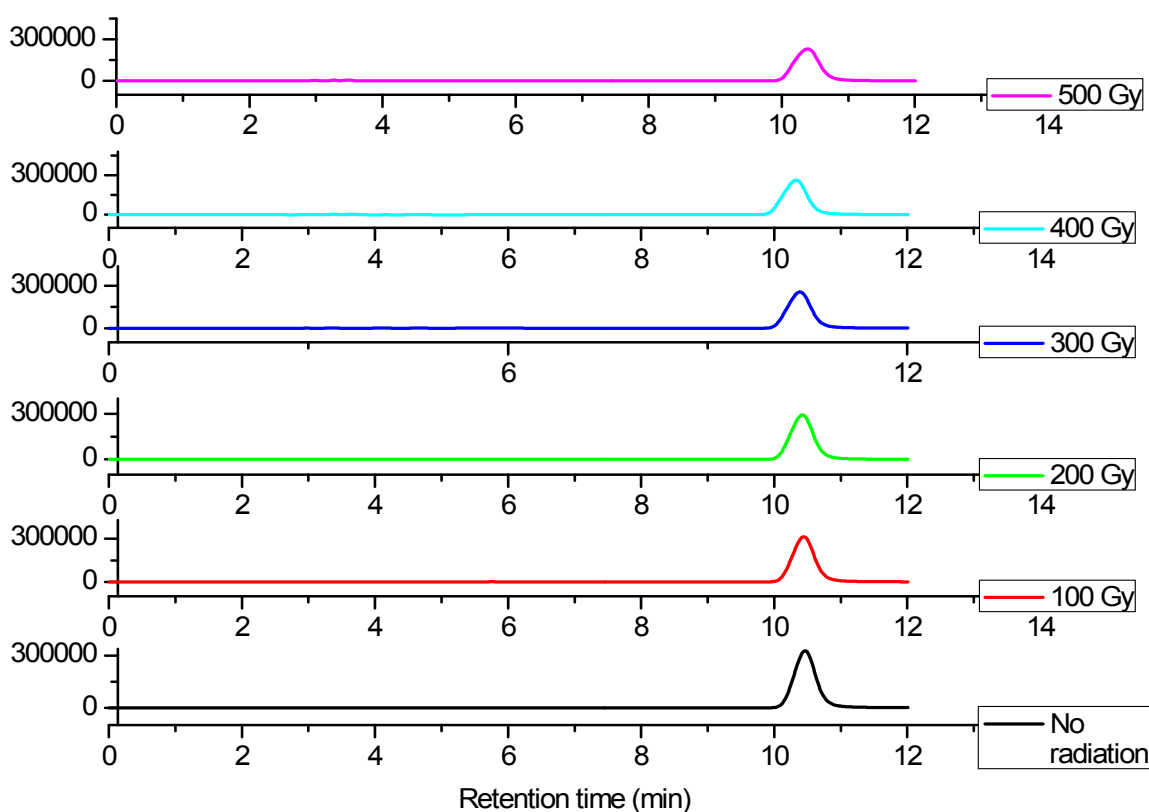


Fig. 1S. HPLC chromatogram of thymine at 254 nm following irradiation at different dose.  $1 \times 10^{-3}$  mol  $\text{dm}^{-3}$  thymine solution was irradiated in the presence of  $1 \times 10^{-4}$  mol  $\text{dm}^{-3}$   $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  in  $\text{N}_2\text{O}$  saturated medium at different doses.

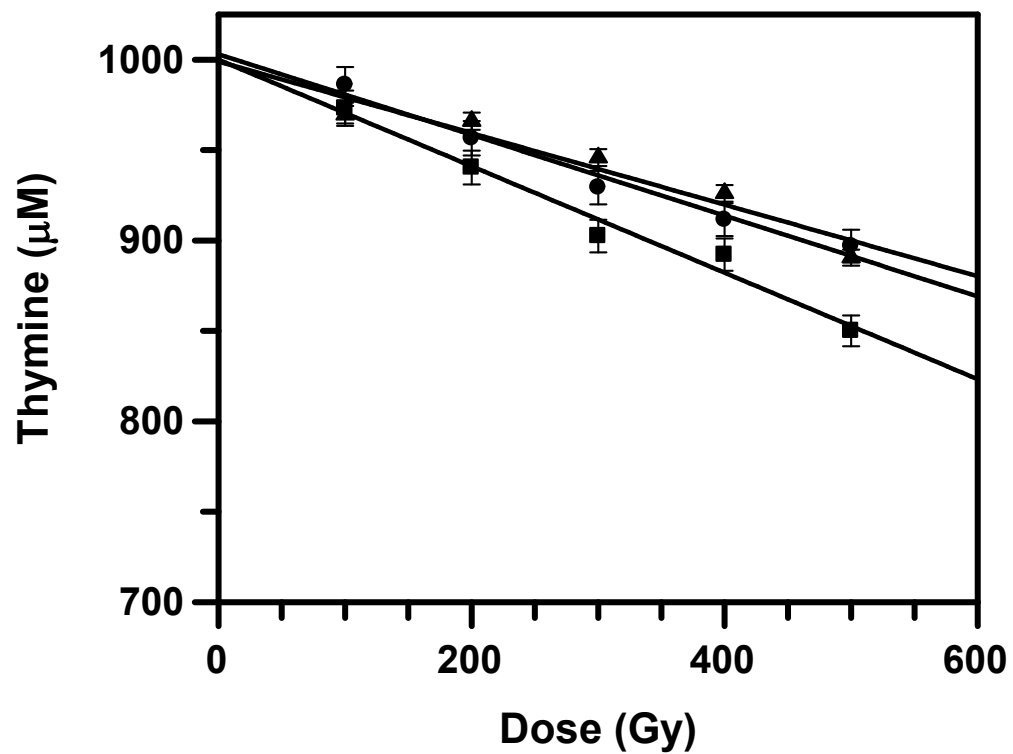


Fig. 2S. Decomposition of thymine in the absence ( $\blacktriangle$ ) and presence of additives: tnz ( $\bullet$ ) and  $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  ( $\blacksquare$ ) due to  $\gamma$ -irradiation in argon saturated medium.

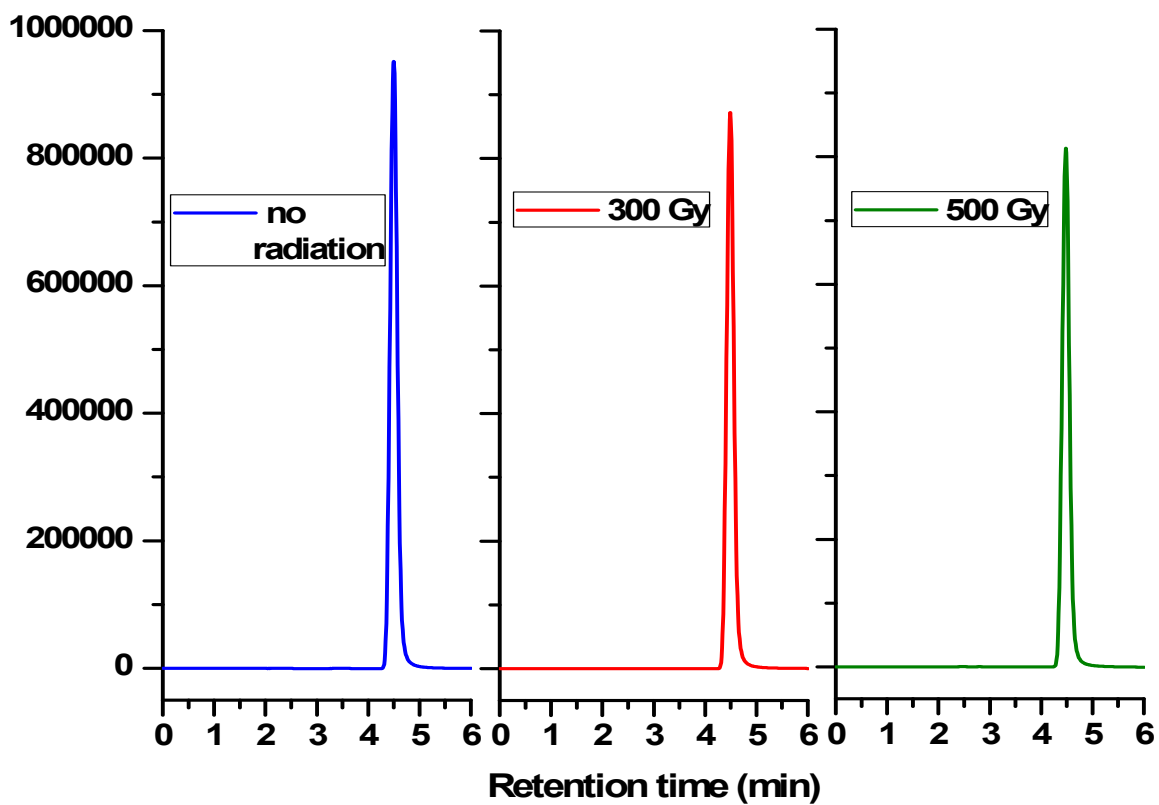


Fig. 3S. HPLC chromatogram of irradiated uracil solution (initially  $1 \times 10^{-3} \text{ mol dm}^{-3}$ ), irradiated in the presence of  $1 \times 10^{-4} \text{ mol dm}^{-3} [\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  in an Argon saturated medium.

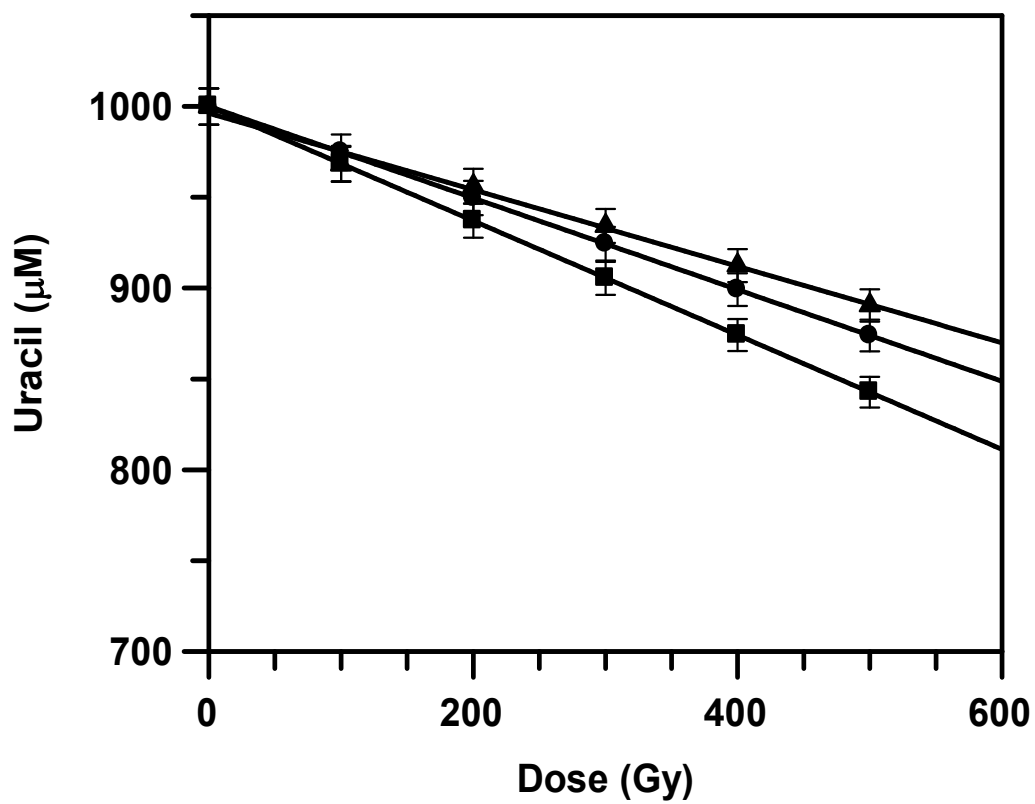


Fig. 4S. Decomposition of uracil in the absence (▲) and presence of additives: tnz (●) and  $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  (■) due to  $\gamma$ -irradiation in argon saturated medium.

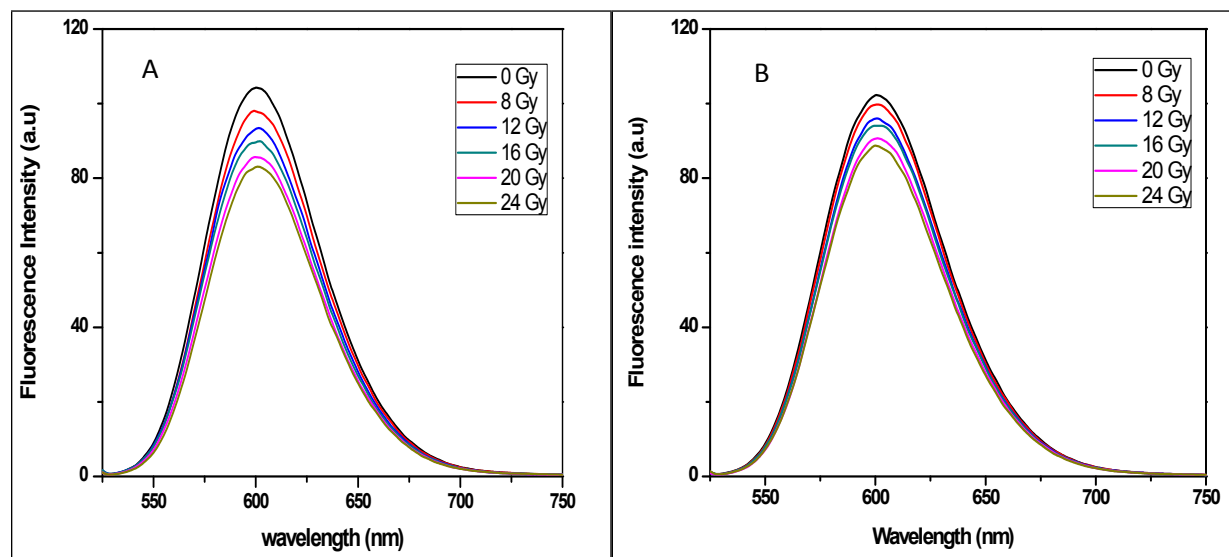


Fig.5S Fluorescence spectra of irradiated calf thymus DNA treated with EtBr. Irradiation was done at different dose in the presence of (A)  $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  and (B) tnz. [calf thymus DNA] = 100  $\mu\text{M}$ ,  $[\text{Cu}_2(\text{OAc})_4(\text{tnz})_2]$  = [tnz] = 20  $\mu\text{M}$ , EtBr = 1000  $\mu\text{M}$ .